

ABSTRACT

A method of scheduling queue servicing in a data packet switching environment is provided. The method includes a sequence of cyclical steps. The output queues are scheduled for servicing on a least credit value basis. An output queue is selected from a group of output queues associated with a communications port. The selected output port has at least one Payload Data Unit (PDU) pending transmission and a lowest credit value associated therewith. At least one PDU having a length is transmitted from the selected output queue and the credit value is incremented taking the length of the transmitted PDU into consideration. The transmission of PDUs is divided into transmission periods. Once per transmission period credit values associated with output queues holding PDUs pending transmission are decremented in accordance with transmission apportionments assigned for each output queue. The method emulates weighted fair queue servicing with minimal computation enabling hardware implementation thereof.